

BIRCH, STEWART, KOLASCH & BIRCH, LLP

P.O. Box 747 • Falls Church, Virginia 22040-0747
 Telephone: (703) 205-8000 • Facsimile: (703) 205-8050

PLEASE NOTE:
 YOU MUST
 COMPLETE THE
 FOLLOWING

COMBINED DECLARATION AND POWER OF ATTORNEY
 FOR PATENT AND DESIGN APPLICATIONS

As a below named inventor, I hereby declare that: my residence, post office address and citizenship are as stated next to my name; that I verily believe that I am the original, first and sole inventor (if only one inventor is named below) or an original, first and joint inventor (if plural inventors are named below) of the subject matter which is claimed and for which a patent is sought on the invention entitled:

Insert Title: 4'-THIONUCLEOTIDES

Fill in Appropriate

Information -
 For Use Without
 Specification
 Attached:

the specification of which is attached hereto. If not attached hereto, the application is identified by the attorney docket number as set forth above and/or the following:

The specification was filed on _____ as
 United States Application Number _____;
 and amended on _____ (if applicable) and/or
 the specification was filed on August 21, 2003 as PCT
 International Application Number PCT/JP2003/010576; and was
 amended on _____ (if applicable)

I hereby state that I have reviewed and understand the contents of the above-identified specification, including the claims, as amended by any amendment referred to above.

I acknowledge the duty to disclose information which is material to patentability as defined in Title 37, Code of Federal Regulations, §1.56.

I do not know and do not believe the same was ever known or used in the United States of America before my or our invention thereof, or patented or described in any printed publication in any country before my or our invention thereof or more than one year prior to this application, that the same was not in public use or on sale in the United States of America more than one year prior to this application, that the invention has not been patented or made the subject of an inventor's certificate issued before the date of this application in any country foreign to the United States of America on an application filed by me or my legal representative or assigns more than twelve months (six months for designs) prior to this application, and that no application for patent or inventor's certificate on this invention has been filed in any country foreign to the United States of America prior to this application by me or my legal representatives or assigns, except as follows.

I hereby claim foreign priority benefits under Title 35, United States Code, §119(a)-(d) of any foreign application(s) for patent or inventor's certificate listed below and have also identified below any foreign application for patent or inventor's certificate having a filing date before that of the application on which priority is claimed:

| Prior Foreign Application(s) | | | Priority Claimed | |
|------------------------------|-----------|------------------------|-------------------------------------|--------------------------|
| 2002-242259 | JAPAN | 08/22/2002 | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| (Number) | (Country) | (Month/Day/Year Filed) | <input type="checkbox"/> | <input type="checkbox"/> |
| (Number) | (Country) | (Month/Day/Year Filed) | <input type="checkbox"/> | <input type="checkbox"/> |
| (Number) | (Country) | (Month/Day/Year Filed) | <input type="checkbox"/> | <input type="checkbox"/> |
| (Number) | (Country) | (Month/Day/Year Filed) | <input type="checkbox"/> | <input type="checkbox"/> |

I hereby claim the benefit under Title 35, United States Code, §119(e) of any United States provisional applications(s) listed below.

Insert Provisional
 Application(s):
 (if any)

| | |
|----------------------|---------------|
| (Application Number) | (Filing Date) |
| (Application Number) | (Filing Date) |

All Foreign Applications, if any, for any Patent or Inventor's Certificate Filed More than 12 Months (6 Months for Designs) Prior to the Filing Date of This Application:

Insert Requested
 Information:
 (if appropriate)

| Country | Application Number | Date of Filing (Month/Day/Year) |
|---------|--------------------|---------------------------------|
| | | |

I hereby claim the benefit under Title 35, United States Code, §120 of any United States and/or PCT application(s), including for continuation-in-part application(s) listed below and, insofar as the subject matter of each of the claims of this application is not disclosed in the prior United States and/or PCT application in the manner provided by the first paragraph of Title 35, United States Code, §112, I acknowledge the duty to disclose information which is material to the patentability as defined in Title 37, Code of Federal Regulations, §1.56 which became available between the filing date of the prior application and the national or PCT international filing date of this application.

Insert Prior U.S.
 Application(s):
 (if any)

| | | |
|----------------------|---------------|---|
| (Application Number) | (Filing Date) | (Status - patented, pending, abandoned) |
| (Application Number) | (Filing Date) | (Status - patented, pending, abandoned) |

Attorney Docket No. _____

I hereby appoint the practitioners at CUSTOMER NO. 02292 as my attorneys or agents to prosecute this application and/or an international application based on this application and to transact all business in the United States Patent and Trademark Office connected therewith and in connection with the resulting patent based on instructions received from the entity who first sent the application papers to the practitioners, unless the inventor(s) or assignee provides said practitioners with a written notice to the contrary:

Send Correspondence to:

BIRCH, STEWART, KOLASCH & BIRCH, LLP or CUSTOMER NO. 02292

P.O. Box 747 • Falls Church, Virginia 22040-0747

Telephone: (703) 205-8000 • Facsimile: (703) 205-8050

PLEASE NOTE:
YOU MUST
COMPLETE
THE
FOLLOWING:
↓

Full Name of First
or Second Inventor
Inventor Name of
Inventor →
Insert Date This
Document is Signed

Insert Residence
Insert Citizenship →

Insert Post Office
Address →

Full Name of Second
Inventor, if any:
see above

Full Name of Third
Inventor, if any:
see above

Full Name of Fourth
Inventor, if any:
see above

Full Name of Fifth
Inventor, if any:
see above

Full Name of Sixth
Inventor, if any:
see above

| | | | |
|--|--|-------------------------|------------|
| GIVEN NAME/FAMILY NAME | | INVENTOR'S SIGNATURE | DATE* |
| Akira MATSUDA | | <i>Akira Matsuda</i> | 03/10/2005 |
| Residence (City, State & Country) | | CITIZENSHIP | |
| Hokkaido, Japan | | Japanese | |
| MAILING ADDRESS (Complete Street Address including City, State & Country) c/o Medicinal Chemistry, Graduate School of Pharmaceutical Sciences, Hokkaido University, Kita 12-jo Nishi 6-chome, Kita-ku, Sapporo-shi, Hokkaido 060-0812 Japan | | | |
| GIVEN NAME/FAMILY NAME | | INVENTOR'S SIGNATURE | DATE* |
| Yuka KATO | | <i>Yuka Kato</i> | 03/10/2005 |
| Residence (City, State & Country) | | CITIZENSHIP | |
| Hokkaido, Japan | | Japanese | |
| MAILING ADDRESS (Complete Street Address including City, State & Country) c/o Medicinal Chemistry, Graduate School of Pharmaceutical Sciences, Hokkaido University, Kita 12-jo Nishi 6-chome, Kita-ku, Sapporo-shi, Hokkaido 060-0812 Japan | | | |
| GIVEN NAME/FAMILY NAME | | INVENTOR'S SIGNATURE | DATE* |
| Noriaki MINAKAWA | | <i>Noriaki Minakawa</i> | 03/10/2005 |
| Residence (City, State & Country) | | CITIZENSHIP | |
| Hokkaido, Japan | | Japanese | |
| MAILING ADDRESS (Complete Street Address including City, State & Country) c/o Medicinal Chemistry, Graduate School of Pharmaceutical Sciences, Hokkaido University, Kita 12-jo Nishi 6-chome, Kita-ku, Sapporo-shi, Hokkaido 060-0812 Japan | | | |
| GIVEN NAME/FAMILY NAME | | INVENTOR'S SIGNATURE | DATE* |
| Residence (City, State & Country) | | CITIZENSHIP | |
| MAILING ADDRESS (Complete Street Address including City, State & Country) | | | |
| GIVEN NAME/FAMILY NAME | | INVENTOR'S SIGNATURE | DATE* |
| Residence (City, State & Country) | | CITIZENSHIP | |
| MAILING ADDRESS (Complete Street Address including City, State & Country) | | | |
| GIVEN NAME/FAMILY NAME | | INVENTOR'S SIGNATURE | DATE* |
| Residence (City, State & Country) | | CITIZENSHIP | |
| MAILING ADDRESS (Complete Street Address including City, State & Country) | | | |